

PENGARUH FRAKSI VOLUME TERHADAP KUAT TEKAN DAN LENTUR KOMPOSIT BERPENGUAT SERBUK KAYU ULIN (Eusideroxylon Zwageri) BERMATRIK POLYESTER

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Abstrak. Komposit merupakan hasil rekayasa dua atau lebih bahan dimana sifat masing-masing bahan berbeda satu sama lainnya. Material komposit terdiri dari matriks dan penguat (reinforcement). Matriks biasanya terbuat dari serat alam seperti serat tumbuhan dan penguatnya berupa resin. Komposit pada penelitian ini berbahan baku serbuk kayu ulin dan bermatrik polyester dengan variasi komposisi 5%:95%, 10%:90%, 15%:85%, 20%:80%, dan 25%:75%. Komposit ini kemudian diuji tekan dan lentur. Dari pengujian diketahui bahwa semakin besar komposisi serbuk kayu ulin maka semakin besar kekuatan kompositnya.

Kata Kunci: komposit, serbuk kayu ulin, polyester

Abstract. Composite is the result of engineering two or more materials where the properties of each material are different from one another. The composite material consists of a matrix and reinforcement. The matrix is usually made of natural fibers such as plant fibers, and the mounting is in the form of resin. The composites in this study were made from ironwood powder and polyester matrix with various compositions of 5%: 95%, 10%: 90%, 15%: 85%, 20%: 80%, and 25%: 75%. The composite is then tested for compression and flexure. From the test, it is known that the greater the composition of ironwood powder, the greater the strength of the composite.

Keywords: composite, ironwood powder, polyester